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Before the
Federal Communications Commission
Washington, D.C. 20554

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AUG 16 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of:	)	
	)	CS Docket No. 99-250
Petition For Rulemaking	)	
To Amend Eligibility Requirements in Part 78	)	RM-9257
Regarding 12 GHz Cable Television	)	
Relay Service	)	

TO: The Commission

COMMENTS OF THE NATIONAL ASSOCIATION OF BROADCASTERS

The National Association of Broadcasters ("NAB")[1] submits these comments in response to the Commission's *Notice of Proposed Rulemaking* in this proceeding.[2] The *Notice* seeks comment on a proposal to allow private cable operators and other multichannel video programming distributors to use frequencies in the 12 GHz band for the delivery of video programming. Given the congestion on this band and the number of users (including television broadcasters) already authorized on the band, the Commission should decline to amend its rules to allow additional users of the 12 GHz frequencies. Particularly in light of the current transition to digital television, this proposal could impair the continued use of these frequencies by broadcasters for important programming production and news gathering operations.

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[1] NAB is a nonprofit incorporated association of radio and television stations and broadcast networks. NAB serves and represents the American broadcasting industry.

[2] *Notice of Proposed Rulemaking*, FCC 99-166 (rel. July 14, 1999) ("*Notice*").

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I. BACKGROUND

The 12 GHz frequency band (12.70-13.20 GHz) is currently allocated to a number of services, including the Broadcast Auxiliary Service ("BAS"). Broadcasters principally utilize the 12.70-13.20 GHz band for fixed point-to-point links, such as studio-transmitter link stations ("STLs") and TV relay stations ("TVRs"). Studio-transmitter links carry a broadcaster's video and audio programming from the main studio to the station's transmitter facility so that the signal can be broadcast over the air to viewers. TV relay stations are generally used as "back hauls" to transport video and audio programming from one location to another (*e.g.*, from a primary station to its translator). The STLs and TVRs that utilize the 12.70-13.20 GHz band thus play a direct role in the provision of broadcast programming to viewers. Broadcasters share this band segment, on a co-primary basis, with the Common Carrier Fixed Point-to-Point Microwave Service ("CC Microwave"), the Local Television Transmission Service ("LTTS"), and the Cable Television Relay Service ("CARS").[3] *See* 47 C.F.R. § 74.602(g).

In addition to the 12.70-13.20 GHz band segment discussed above, broadcasters also use the 13.20-13.25 GHz segment for important operations. Specifically, this band segment is reserved for TV pickup operations by BAS and LTTS licensees.[4] In contrast to studio-transmitter link and TV relay stations that are fixed, TV pickup operations are itinerant and primarily involve electronic news gathering ("ENG") and sports/special events production. For example, in news gathering operations, these frequencies are

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[3] CARS stations are used to transmit video programming over the air where cable transmission is not feasible, such as across a river or over a mountain.

[4] The 13.15-13.20 GHz segment is also reserved exclusively for TV pickup and CARS pickup operations within a 50 kilometer radius of each of the top 100 television markets. *See* 47 C.F.R. § 74.602(a) and table therein.

utilized to transmit a signal from the scene of a live news event to the broadcast station. TV pickup operations also facilitate network and other coverage of sporting events, as well as special events such as political conventions and inaugurations. These various TV pickup operations significantly contribute to the production of local news programming, thereby materially assisting broadcasters in serving their communities.

In a petition for rulemaking, OpTel, Inc. ("OpTel"), a private cable operator ("PCO"), requested the Commission to authorize PCOs as eligible users of the frequency band from 12.70-13.20 GHz.[5] OpTel's petition also requested use of the frequency band segment from 13.20-13.25 GHz. In the *Notice,* the Commission requested comment on various issues presented by OpTel's petition, and broadened the inquiry to include consideration of the expanded use of the 12.70-13.20 GHz band by other multichannel video programming distributors ("MVPDs"), as well as PCOs. With regard to OpTel's request for use of the additional 13.20-13.25 GHz band segment, the Commission expressed particular concern about the compatibility of shared use of this spectrum between fixed PCOs and mobile BAS operations. In particular, the Commission sought comment "on any existing or future impact this sharing may have with BAS, especially as it relates to the required digital transition for broadcasters." *Notice*, at ¶ 8.

[5] Using microwave links in the 18 GHz and 23 GHz bands, OpTel provides video and other services to residential customers primarily located in multiple dwelling units. PCOs such as OpTel are not currently authorized to utilize the 12.70-13.20 GHz band for this purpose, and OpTel's petition asked the Commission to amend its rules to allow such use. *See* Petition for Rulemaking of OpTel, Inc., filed April 1, 1998.

II. THE COMMISSION SHOULD NOT EXPAND THE NUMBER OF ELIGIBLE USERS OF THE 12 GHz FREQUENCIES.

A. The 12.70-13.20 GHz Frequency Band Is Already Severely Congested In Most Areas.

In the majority of television markets, the 12.70-13.20 GHz band is already extremely congested. Due to the proliferation of CC Microwave stations and CARS links (which operate on multiple channels within the band), BAS and other licensees in this band face increasing difficulties in coordinating fixed links, such as those for studio-transmitter links and TV relay stations.[6]

Explosive growth in the 12.70-13.20 GHz band has also resulted from progressive over-crowding in other frequency bands allocated for terrestrial fixed service microwave operations. In the top 100 television markets, for example, the other band allocated for fixed links (the 6-7 GHz) is effectively full, and virtually no new links can be "cleared." Frequency coordinators therefore recommend that new fixed links be placed in the 12 GHz or 18 GHz band. The Commission pointed out in the *Notice*, however, that the access of all fixed service licensees (including BAS licensees) to the 18 GHz band will likely be significantly curtailed as a result of actions taken in IB Docket No. 98-172. *See Notice*, at ¶¶ 20-21.[7] This combination of factors has already produced substantial demand for spectrum in the 12 GHz band, and it seems highly unlikely that additional categories of users can be accommodated on this band, especially in major metropolitan

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[6] Moreover, the Commission has proposed to allow non-geostationary orbit Fixed Satellite Service systems to operate in the 12 GHz band (among others) for earth-to-space links. *See Notice of Proposed Rulemaking* in ET Docket No. 98-206, RM-9147 and RM-9245, FCC 98-310 (rel. Nov. 24, 1998). The proposals in that proceeding may lead to a further and substantial increase in the terrestrial use of the 12 GHz frequencies.

[7] This proceeding concerns proposals to resegment the 18 GHz band and grant blanket licenses to Fixed Satellite Service operators. *See Notice of Proposed Rulemaking* in IB Docket No. 98-172, FCC 98-235 (rel. Sept. 18, 1998).

areas. Accordingly, the Commission should not extend eligibility to use the 12.70-13.20 GHz band to PCOs or other MVPDs. Taking such an action would exacerbate existing congestion problems and severely hamper the ability of existing licensees, including broadcasters, to establish fixed links for important operations.

B. Unencumbered Use Of The 13.20-13.25 GHz Band By Broadcasters Is Vital To The Successful Implementation Of Digital Television.

The *Notice* also raised the issue of access by PCOs to the additional 13.20-13.25 GHz band segment, which, as described above, is reserved for TV pickup operations, such as electronic news gathering and sports/special events production.[8] In response to the Commission's request for comment on the impact of "mobile BAS" sharing this spectrum with "fixed PCOs," especially with regard to the "required digital transition," NAB strongly asserts that the continued and unencumbered use of these band segments by broadcasters for TV pickup operations is vital to the successful implementation of digital television.

The need for unencumbered broadcaster access to the 13.20-13.25 GHz band stems from the greater bandwidth required for TV pickup operations in a digital environment. Specifically, to deliver "contribution quality" High Definition Television ("HDTV") video from a remote production location back to a studio, channels of wide bandwidth (25 MHz) are necessary.[9] As a practical matter, channels of this necessary

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[8] As previously noted, the 13.15-13.20 GHz band segment is also reserved exclusively for TV pickup and CARS pickup operations in the top 100 television markets.

[9] "Contribution quality" video is video of higher quality than the video that is transmitted to viewers. This video must undergo editing, repackaging and other processing so as to produce the programming that is ultimately transmitted to viewers. Channels of greater bandwidth are needed to carry this contribution quality video because of the higher data rates required for HDTV video.

greater bandwidth are available for TV pickup operations only in the 13 GHz band (*i.e.*, in the 13.20-13.25 GHz segment and in the 13.15-13.20 GHz segment in the top 100 television markets). Of the other four spectrum bands currently available for BAS licensees to conduct TV pickup operations (the 2, 2.5, 6-7, and 40 GHz bands), none contain interference-free channels of sufficient bandwidth to support TV pickup operations transmitting HDTV video.[10]

Because only the 13 GHz band can support electronic news gathering and other mobile production in a digital environment, allowing other users such as PCOs to construct and operate microwave facilities in this band would significantly hamper the ability of broadcasters to produce and relay HDTV programming. Any decision now to begin permitting PCOs or other MVPDs to use the 13 GHz TV pickup bands would be particularly untimely, as broadcasters are planning to offer expanded HDTV programming this fall, which will likely result in increased TV pickup operations on the 13 GHz bands. In particular, these band segments will be needed by the broadcast networks that intend to telecast major sporting events in HDTV so as to increase consumer interest in digital television. Broadcasters in the midst of the digital television

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[10] For example, the channel size (17 MHz wide) in the 2 GHz band (1.99-2.11 GHz) and the 2.5 GHz band (2.45-2.4835 GHz) is too narrow to support the high data rates needed for contribution quality HDTV video. Moreover, a portion of the 2 GHz band has been reassigned to the Mobile Satellite Service; as a result, the amount of spectrum available in this band for BAS has been reduced and the channels will consequently shrink to a size (as small as 12 MHz) that makes the transmission of contribution quality HDTV signals impossible. BAS stations operating in the 2.5 GHz band are secondary to the incidental emissions of industrial, scientific and medical equipment and are, with current technology, often disrupted by interference. TV pickup operations in the 6-7 GHz band (6.425-6.525 and 6.875-7.125 GHz) are shared with fixed links and other mobile microwave stations, and, due to the congestion described in Section II.A. above, BAS operations there have become increasingly difficult to coordinate, especially in larger markets. As for the 40 GHz band (38.6-40 GHz), while wide bandwidth channels are available, the path lengths that can be achieved are generally too short to be useful for many TV pickup applications.

transition would find it especially disadvantageous to share spectrum with PCOs because many of their stations would operate as point-to-multipoint facilities over the entire band segment, thereby precluding the BAS use of this spectrum across wide geographic areas.

For these reasons, NAB urges the Commission to decline to amend its rules to allow PCOs or any other MVPDs access to the 13 GHz bands. Given the inherent difficulties presented in requiring mobile BAS operations to share spectrum with fixed PCO facilities, the Commission should preserve the 13 GHz band (both the 13.20-13.25 and the 13.15-13.20 GHz segments) for TV pickup operations so that broadcasters will have sufficient spectrum to support these important operations during and after the transition to digital television.

III. CONCLUSION

The Commission should proceed cautiously when considering any proposals to expand to additional categories of licensees the eligibility to utilize spectrum bands that are already over-crowded. Given the severe congestion in the 12.70-13.20 GHz band, permitting PCOs and other MVPDs to use the band would only exacerbate the existing problems faced by current licensees in coordinating links for important facilities, including TV relay and studio-transmitter link stations. The 13.20-13.25 GHz band segment must, moreover, be preserved for unencumbered use by broadcasters' TV pickup operations so as to facilitate a successful implementation of digital television. Significantly increasing the number of users on these spectrum bands during a period of

transition in the broadcast television industry would be ill advised and would not advance the public interest. Thus, the Commission should not amend its existing rules regarding eligible users of the 12.70-13.20 GHz and 13.20-13.25 GHz frequencies.

Respectfully submitted,

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August 16, 1999